

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-11. (Canceled)

12. (New) Method for recognizing the path of a tip of a body on a medium, comprising determination of an angle of orientation of the body by processing measurement data supplied to a processing unit by at least one angle sensor arranged in the body, the body comprising a force sensor measuring the reaction force of the tip of the body in contact with the medium, the force sensor supplying data representative of the reaction force in almost continuous manner to the processing unit, the processing unit determining the orientation of the reaction force with respect to the plane of the medium from the measurement data from the angle sensor and from the force sensor, method wherein the processing unit determines a vector tangential to the path by projection of the reaction force in the plane of the medium, the path being determined by at least one mathematical integration of a quantity that is a function of the vector tangential to the path.

13. (New) Method according to claim 12, comprising mathematical integration of the tangential vector.

14. (New) Method according to claim 12, wherein the medium is flat.

15. (New) Method according to claim 12, comprising a calibration and orientation step of the medium.

16. (New) Method according to claim 15, wherein the body is placed at a predetermined angle with respect to an axis perpendicular to the medium during the calibration step.
17. (New) Method according to claim 16, wherein the body is placed perpendicularly to the medium during the calibration step.
18. (New) Method according to claim 12, comprising determination of the acceleration of the tip by processing of measurement data supplied to the processing unit by the angle sensor and by at least one accelerometer located in the body, the processing unit determining a unitary vector tangential to the path by normalization of the vector tangential to the path and determining the scalar product of data representative of the acceleration and of the unitary vector so as to obtain said quantity representative of the tangential acceleration of the tip of the body, the path being determined by double mathematical integration of said quantity.
19. (New) Method according to claim 18, wherein the processing unit determines the projection of the acceleration in the plane of the medium according to the data supplied by the accelerometer and the angle sensor, so as to supply said data representative of the acceleration.
20. (New) Method according to claim 18, comprising an estimation of the contribution of gravity to the measurement data supplied by the accelerometer and elimination of said contribution from the data supplied by the accelerometer.

21. (New) Method according to claim 12, wherein the body comprises a sensor designed to supply the measurement of a physical quantity so as to enable mapping of said physical quantity according to the measured path.

22. (New) Method according to claim 12, wherein the body comprises an actuator.